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Applicant(s)	Christopher J. Scafidi
Serial No.	09/740,771
Filing Date	December 19, 2000
Group Art Unit	2831
Examiner Name	Hung Ngo
Attorney Docket No.	100.154US01

Title: ENHANCED HEAT TRANSFER FOR HOUSINGS

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37 CFR 1.8
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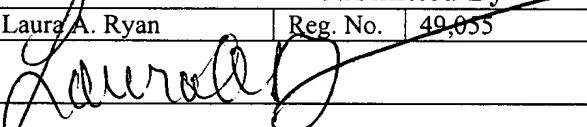
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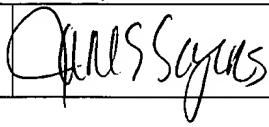
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS

#14 Appeal Brief
P. Evans
10.29.03

Appellants:	Scafidi
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APPEAL BRIEF

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1. Introduction

On August 11, 2003, Appellants filed a notice of appeal from the final rejection of claims 86-88 and 90-93 set forth in the Final Office Action mailed May 9, 2003.

Three copies of this Appeal Brief are hereby timely filed on October 14, 2003 and are accompanied by a fee in the amount of \$330.00 as required under 37 C.F.R. §1.17(c).

2. Real Party in Interest

The real party in interest in the above-captioned application is the assignee ADC Telecommunications, Inc.

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3. Related Appeals and Interferences

There are no other appeals or interferences known to Appellants that will have a bearing on the Board's decision in the present appeal.

4. Status of the Claims

Claims 86-88 and 90-93 are pending in the application. Claims 86-88 and 90-93 are the subject of this appeal. In a Final Office Action mailed May 9, 2003, Claims 86-88 and 90-93 were rejected under 35 U.S.C. §102(b).

5. Summary of the Amendments

No amendments have been made after the Final Office action.

6. Summary of the Invention

A method for manufacturing an apparatus for containing objects is provided. The method includes forming first and second heat-conducting partial-shells, having first and second faces, respectively, attaching at least one object to either the first or second partial-shell for thermal contact therebetween, forming a housing by butting the first and second faces together, and enhancing heat transfer between the first and second heat-conducting partial-shells. Enhancing heat transfer includes disposing a conformable thermally conducting material between the first and second heat-conducting partial-shells to provide void-free contact between the first and second faces.

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7. Issues Presented for Review

The questions presented in this Appeal is whether the Examiner erred in rejecting Claims 86-88 and 90-93 under 35 U.S.C. §102(b) as being anticipated by Nakagawa (U.S. Patent No. 4,980,513).

8. Grouping of Claims

Each of claims 86-88 and 90-93 stand or fall on their own merits for reasons detailed below. Each of the claims is patentably distinct for the reasons detailed below.

9. Argument**A.. Rejection of Claims 86-88 and 90-93 under 35 U.S.C. §102(b)****i. The Applicable Law**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbi* test, i.e., identity of terminology is not required. *In re Bond*, 910 F. 2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). *See*, M.P.E.P. 2131.

Anticipation focuses on whether a claim reads on a product or process disclosed in a prior art reference, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating

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subject matter. *PPG Industries, Inc. v. Guardian Industries Corp.*, 75 F.3d 1558, 37 U.S.P.Q.2d 1618 (Fed. Cir. 1996).

ii. 35 U.S.C. §102(b) rejection analysis

The Examiner finally rejected claims 86-88 and 90-93 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,980,513 (the '513 Patent). In support of this rejection, the final Office Action states:

"Nakagawa discloses an electromagnetic shielding housing comprising first and second heat-conducting partial shells (3,5) made of metal (col 4, lines 2-5) having first and second faces, at least one object or a conformable thermally conducting material (1) made of thermal conductivity such as metal (col 3, line 1-9) attaching one of the partial shells to provide a void-free contact between the first and second faces (col 2, line 15-17)(Fig 1), forming a housing (Fig 1)(re claim 86)." Final Office Action at 2.

Applicant respectfully traverses this rejection.

Claim 86 is directed to a method for manufacturing an apparatus for containing objects. The method includes forming first and second heat-conducting partial-shells, having first and second faces, respectively, attaching at least one object to either the first or second partial-shell for thermal contact therebetween, forming a housing by butting the first and second faces together, and enhancing heat transfer between the first and second heat-conducting partial-shells. Enhancing heat transfer comprises, disposing a conformable thermally conducting material between the first and second heat-conducting partial-shells to provide void-free contact between the first and second faces.

Applicant respectfully asserts that the '513 Patent fails to teach or suggest the method of claim 86. In particular, the '513 Patent fails to teach or suggest attaching at least one object to either the first or second partial-shells for thermal contact therebetween as found in claim 86. Further, the '513 Patent fails to teach or suggest enhancing heat transfer between the first and second heat-conducting partial shell by disposing a conformable thermally conducting material between the first and second

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heat-conducting partial-shells as found in claim 86. The Examiner relies on an electromagnetic-shielding gasket (1) attached to a housing (3) in support of “attaching at least one object to either the first or second partial-shells.” The limitation “attaching at least one object to either the first or second partial-shells” is not the same as the limitation “enhancing heat transfer between the first and second heat-conducting partial-shells.” The limitations are separate individual limitations discussing attaching an object and enhancing heat transfer, respectively. Applicant finds that the ‘513 Patent fails to teach or suggest “attaching at least one object to either the first or second partial-shells for thermal contact therebetween” as found in claim 86.

In addition, the Examiner relies on Col. 3, lines 1-9 of the ‘513 Patent in support of “made of thermal conductivity such as metal” which states:

“... (Ti), zirconium (Zr) or the like in group IVa according to the periodic system, vanadium (V), niobium (Nb) or tantalum (Ta) in group Va, chromium (Cr), molybdenum (Mo) or the like in group VIa, manganese (Mn) or the like in group VIIa, or iron (Fe), cobalt (Co), nickel (Ni) or the like in group VIII. Metals Fe, Co, Ni, V, Nb, Ta, Ti, and Zr are best. The oxide, nitride, chloride or the like of the metals is used as the high-melting metal compound.”

Claim 86 includes “enhancing heat transfer between the first and second heat-conducting partial shells by disposing a conformable thermally conducting material between the first and second heat-conducting partial-shells as found in claim 86.” Col. 3, lines 1-9 of the ‘513 do not teach or discuss enhancing heat transfer by disposing a conformable thermally conducting material between the first and second heat-conducting partial shells as found in claim 86.

Further the ‘513 Patent does not discuss enhancing heat transfer between first and second heat conducting partial shells as found in claim 86. In contrast, the ‘513 Patent discusses providing an electromagnetic-shielding gasket that has elasticity and *conductivity (low electric resistivity)*. Col 2, lines 13-17. Further the ‘513 Patent discusses a conductive seal for filling a gap between first and second surfaces comprising: a body of elastic material for filling the gap between the first and second

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surfaces; and interlaced carbon fibers distributed in the body such that the body is *electrically conductive*. Col. 2, lines 18-23. There is no discussion of disposing a *thermally* conducting material between first and second heat-conducting partial shells as found in claim 86. The '513 Patent further discusses the electromagnetic-shielding gasket containing a specified carbon fiber and electrical current can flow through the interlaced carbon fibers, thereby providing a uniform conductivity to the elastic body and the gasket thus provided with conductivity fits the gap in the conductive housing, and gives conductivity further to the conductive housing and the inside and outside of the conductive housing are shielded from electromagnetic waves. Col. 2, lines 24-41. The Examiner relied on Col. 3, lines 1-9 and alleges that the electromagnetic-shielding gasket is made of thermal conductivity such as metal and in contrast Col. 3., lines 1-9 discusses a high-melting metal for developing carbon fiber. Col. 2, lines 65- Col. 3, line 9. Further, the '513 Patent discusses that the amount of carbon fiber contained in the elastic body of the electromagnetic-shielding gasket determines the conductivity or the electric resistivity of the electromagnetic-shielding gasket. See Col. 2, lines 42-45. Further, there is no discussion in the '513 patent of thermal conductivity or enhancing thermal conductivity as found in claim 86. As result the '513 patent does not anticipate claim 86.

Claims 87, 88 and 90-93

Claims 87-88 and 90-93 depend from claim 86 and thus include the patentable limitations of claim 86. Therefore, reversal of the rejection of claims 87-88 and 90-93 is respectfully requested.

10. Summary

Appellants have set forth reasons why the Examiner is incorrect in maintaining the rejections of the pending claims. Specifically, the Examiner has failed to set forth a *prima facie* case of anticipation. The '513 Patent does not teach all the limitations in

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the pending independent and defendant claims. Appellant respectfully submits that, for the above reasons, Claims 86-88 and 90-93 are allowable over the cited art. Therefore, reversal of the Examiner's rejections is respectfully requested.

Respectfully submitted,

Date:

10 October 2003 

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Appendix 1

The Claims on Appeal

86. A method for manufacturing an apparatus for containing objects, the method comprising:

forming first and second heat-conducting partial-shells, having first and second faces, respectively;

attaching at least one object to either the first or second partial-shell for thermal contact therebetween;

forming a housing by butting the first and second faces together;

enhancing heat transfer between the first and second heat-conducting partial-shells;

wherein enhancing heat transfer comprises, disposing a conformable thermally conducting material between the first and second heat-conducting partial-shells to provide void-free contact between the first and second faces.

87. The method of claim 86, further comprising providing for selectively securing the first and second heat conducting partial-shells together.

88. The method of claim 87, further comprising connecting the first and second partial-shells so that the first and second partial-shells pivot about a common axis.

89. (Cancelled)

90. The method of claim 86, wherein enhancing the heat transfer is accomplished by disposing a weatherproof conformable thermally conducting material between

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the first and second faces to increase the thermal contact between the respective faces.

91. The method of claim 86, wherein enhancing the heat transfer further comprises sealing the housing against the weather and is carried out by disposing a weatherproof, weather-sealing conformable thermally conducting material between the first and second faces to increase the thermal contact between the respective faces.

92. The method of claim 86 further comprising sealing the housing against electromagnetic interference by disposing an electromagnetic-interference seal between the first and second faces.

93. The method of claim 86 further comprising sealing the housing against electromagnetic interference and the weather by disposing a weatherproof, weather sealing electromagnetic-interference seal between the first and second faces.